

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
09/692,927	27 10/20/2000 Richard Stirling-Gallacher		450117-02828	8382		
20999	7590 11/17/2004		EXAM	EXAMINER		
	LAWRENCE & HAU	PHU, PHUONG M				
NEW YORK,	VENUE- 10TH FL. NY 10151		ART UNIT	PAPER NUMBER		
,			2631			

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

				<u> </u>			
		Application No. App		Applicant(s)	pplicant(s)		
Office Action Summary		09/692,927		STIRLING-GALLACHER, RICHARD			
		Examiner		Art Unit			
		Phuong Phu		2631			
Period fo	The MAILING DATE of this communication apport	pears on the c	over sheet with the c	orrespondence ad	ldress		
THE I - Exter after - If the - If NO - Failu Any	ORTENED STATUTORY PERIOD FOR REPL MAILING DATE OF THIS COMMUNICATION. nsions of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. period for reply specified above is less than thirty (30) days, a reply period for reply is specified above, the maximum statutory period re to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailined patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, ly within the statutor will apply and will ex e, cause the applicat	however, may a reply be tim y minimum of thirty (30) days opire SIX (6) MONTHS from to tion to become ABANDONE	ely filed s will be considered timel the mailing date of this c O (35 U.S.C. § 133).			
Status							
1)[	Responsive to communication(s) filed on <u>02 S</u>	September 200	04.				
·							
3)	·—						
Dispositi	on of Claims						
5)□ 6)⊠ 7)□	Claim(s) 11-20 is/are pending in the applicatio 4a) Of the above claim(s) is/are withdra Claim(s) is/are allowed. Claim(s) 11-20 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or	wn from consi					
Applicati	on Papers						
9)[	The specification is objected to by the Examine	er.					
10) 🗌	D)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
	Applicant may not request that any objection to the		•	, ,			
11)	Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority u	inder 35 U.S.C. § 119						
12)   / a)[	Acknowledgment is made of a claim for foreign All b) Some * c) None of:  1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureau ee the attached detailed Office action for a list	s have been r s have been r rity document u (PCT Rule 1	eceived. eceived in Applications have been receive 7.2(a)).	on No d in this National	Stage		
Attachment	r(s)						
2) 🔲 Notico 3) 🔲 Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) · No(s)/Mail Date		Interview Summary ( Paper No(s)/Mail Dat Notice of Informal Pa Other:	te	)-152)		

Application/Control Number: 09/692,927 Page 2

Art Unit: 2631

### **DETAILED ACTION**

1. This Office Action is responsive to the Amendment filed on 9/2/04.

## Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the decoding units" on line 5. It is unclear whether the limitation refers to "two effective decoding units" previously recited on line 2, otherwise, the limitation is lack of antecedent basis.

Claim 15 recites the limitation "the decoding units" on line 4. It is unclear whether the limitation refers to "a plurality of effective decoding units" previously recited on line 2, otherwise, the limitation is lack of antecedent basis.

Claim 17 recites the limitation "decoding unit(s)" on lines 1-2. It is unclear whether the limitation refers to "the other decoding unit(s)", recited on line 8 of claim 15, otherwise, the limitation is lack of antecedent basis.

Claim 19 recites the limitation "the associated decoding unit". This limitation is lack of antecedent basis.

Claims, (if any) depended on the above claims, are also rejected with the above reasons.

Application/Control Number: 09/692,927

Art Unit: 2631

4. Claims 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Claim 11 omits functional/structural/connectional interrelationships of elements, e.g., "two effective decoding units", "a respective decoding unit" and "a subset of the decoding units" to one another mutually in order to make the claimed a turbo decoder as a complete operative and connective system.

Claim 13 omits functional/structural/connectional interrelationships of elements, e.g., first decoding unit and second decoding unit to each other, and to other elements (e.g., "two effective decoding units", "a respective decoding unit", "a subset of the decoding units", etc.), recited in claim 11, in order to make the claimed a turbo decoder as a complete operative and connective system.

Claim 15 omits functional/structural/connectional interrelationships of elements, e.g., decoding units, in "a plurality of effective decoding units", and a subset of the decoding units, to one another mutually to make the system recited in the claimed method as a complete operative and connective system.

Claim 15 omits limitation(s), in associated with elements "a plurality of effective decoding units" to clarify the functions and/or operations of "a soft output Viterbi algorithm", otherwise the limitation "a soft output Viterbi algorithm" would be given a patentable weight as an algorithm.

Claim 18 omits functional/structural/connectional interrelationships of elements first decoding unit and second decoding units, recited in "first and second decoding units" on lines 1-

Application/Control Number: 09/692,927

Art Unit: 2631

2), to each other and to other elements (e.g., decoding units in "a plurality of effective decoding units" and a subset of the decoding units), recited in claim 15, to make the system recited in the claimed method as a complete operative and connective system.

Claim 20 omits limitation(s), in associated with the claimed method, to clarify the functions and/or connections for performing the limitation "a parallel concatenated scheme", recited on line 2; otherwise, the limitation would be given a patentable weight as a scheme.

Claims, (if any) depended on the above claims, are also rejected with the above reasons.

## Response to Arguments

5. Applicant's arguments filed on 9/2/04 have been fully considered.

The objection to the Specification has been withdrawn since the Specification was amended to overcome the objection.

Applicant's arguments, with respect to the newly-added claims 11-20, have been considered. However, the claims are rejected with reasons set forth above in this Office Action.

#### Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Application/Control Number: 09/692,927

Art Unit: 2631

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

7. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The

examiner can normally be reached on M-F (6:30-2:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuong Phu **Primary Examiner**  Page 5

Art Unit 2631

11/08/04